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ABSTRACT

Although a disproportionate number of children having difficulties in school come from families of impoverished socioeconomic backgrounds, it cannot be assumed that cultural deprivation causes school problems without specifying how, when, and why. The application of psychological and other social scientific techniques to investigate these matters and the use of the information to properly program compensatory education for the poor are being attempted by the Education Improvement Program in Durham, North Carolina. Three neighborhoods of the larger community of about 100,000 have been selected by the poverty authority as areas of greatest economic and social deprivation, two areas predominantly of Negro residents and one of mostly Caucasian. In these neighborhoods the poverty program has begun various social and economic interventions including day care centers for children. The plan has been to work primarily with samples of children in the three areas using classroom operations, but the program includes a social work component for gathering data about the home, liaison with parents about the school program, and referral of the family to social service resources as indicated. The goal of the program is to apply learning theory and sociological information to the problem of teaching the children to learn those social and cognitive skills necessary to educational achievement and to value such attainment. (JM)

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THE CULTURALLY DISADVANTAGED AND COMPENSATORY EDUCATION: FANTASIES AND REALITIES*

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* Address to the Northern Ireland Branch of the British Psychological Society, Belfast, January 1967.

My concern is with psychological conceptions relevant to effecting optimal educational aptitude and achievement in children born and reared in environments of poverty. Psychology has been concerned with the educational ineptitude of the poor for at least sixty years, dating from Alfred Binet's ingenious instrument for identification of children unable to profit from ordinary educational routines. Since those children so identified were also maladroit in social adjustment skills deemed necessary for acceptance and maintenance in a middle class society, we defined them as mentally retarded and explained their adaptive limitations as due to some vague concept of genetic structure. We soon discovered that an undue proportion of children with lower intelligence were to be found in families of relatively uneducated and unskilled parents. The fact that the average IQ of children with unskilled fathers tends to be 20 points lower than children with managerial-professional fathers has obscured the more fascinating fact that in absolute numbers there were actually more children of gifted intelligence from unskilled fathers. But our concern in educational planning has been with identification of and provision for given talent, rather than with the question of how they became talented. Unfortunately, the very potency of the IQ test as a device for educational planning and the psychological conception of intelligence as an organismic given tended to preclude the study of intelligent behavior as learned. Intelligence provided an index of learning skill, rather than of learned skills.

Although philosophers and historians are well aware that ways of thinking are strongly influenced by cultural times and trends, psychologists and other

scientists have seemed peculiarly unaware or insensitive to the cultural context of their work. Thirty years ago psychologists, at least in America, were caught up in an intellectual feminist movement, busily engaged in proving that women were the psychological equals of men. During the past decade one of the major breakthroughs in developmental psychology has been the "discovery" that males and females are quite different in psychological development and functioning. I suspect that the preservation of the genetic conception of intelligence was greatly influenced by cultural forces. Perhaps in England this was due to the tradition of man's destiny as inscribed in his birthright (or wrong), in spite of many notable instances to the contrary. In the United States the mythology of equal opportunity and unlimited aspirations would not seem supportive of the notion of inherited ability. Yet the very existence of the poor had to be explained as due either to lack of ability or will power. And the humanism of intellectuals would prefer an explanation of familial inadequacy to an accusation of personal immorality.

In any event, the belief in genetically given ability was so strong that the environmentalists had very heavy going in the heated polemics of the 1930's. The intriguing studies of early educational experience and intelligence at the University of Iowa were dealt with harshly by the tradition-bound methodologists of psychological orthodoxy. The wide sweep of the compass represented in current views is evident in the recent followup study by Harold Skeels (1966) of Iowa infants, reporting clear and great discrepancies in adult status of children with contrasting early life experiences.

I shall not belabor the role of cultural historian. Whatever the causes of past beliefs, some striking current trends are revolutionizing our conceptions about intelligence and education, with enormous and powerful implications. On the one hand is the recent revitalization of the conception of intelligence and thinking by psychologists, such as Hebb (1949), Piaget (1950), Bruner (1966), and Hunt (1961). On the other is the major commitment in the United States to the eradication of poverty conditions with emphasis upon early educational intervention, as with the Headstart Program initiated in the summer of 1965.

The essence of the new view, as formulated by Hunt under the strong influence of Piaget, is that those patterns of behavior comprising intelligence are accumulative, acquired, maintained and elaborated by sequential learning experiences. In this framework IQ must be considered as an index of general cultural achievement, rather than as a reflection of inherited potential. This is not to suggest some miraculous unanimity of agreement among psychologists about the learning process. There is, and will no doubt continue to be, strong diversity of emphases, with the neobehaviorists heralding peripheral response hierarchies and the cognitive theorists championing inferred central structures. And all advocates will give a respectful nod to the impressive accomplishments of their more biologically oriented brethren with regard to studies of brain and behavior. Nonetheless, the commonly shared and exciting premise is that intelligent behaviors (and therefore educational aptitude) are learned, and we all can get on with the business of determining the nature and conditions of such acquisition.

Meanwhile, we are faced with the urgent demand for knowledge about complex learning processes, accumulated over time under known conditions, and deviations therefrom among the culturally maladapted, upon which to build large scale programs of early and continuing educational intervention. We know that many children have difficulties in school--failure to learn basic academic skills, especially reading; persistence of behaviors unacceptable to the school; and eventually they drop out of school with apparently little accumulated knowledge or socialization according to cultural standards. Also, we know that an excessively high proportion of such children come from families of impoverished social and economic conditions. But, as David Rosenhan (1965) has succinctly pointed out, there has been a general tendency to assume that therefore cultural deprivation causes school problems, without any specification of how, when and why. Further, he notes the implicitly pessimistic stance of such unwarranted assumption of causation from correlation, in that the awesome array of social and cognitive deficiencies presumably predetermining school failure are either already irreversible or cannot be remedied without major environmental surgery, such as parentdecthomy. Our belief that environmental impoverishment ought to result in educational handicap does not constitute proof that it inevitably does so. The fact remains that although many children of poverty do suffer educational handicap with associated limitations in cultural accommodation, many other children from similar environs actually achieve academic and subsequent success. I would suggest that blueprints for the war on poverty

based upon rapid conversion of children and families into paragons of middle-class aspirations and rectitude are much less appropriate than guidelines derived from the careful study of poverty families whose children have or are making a suitable educational adaptation. Unfortunately, such studies do not now exist and are desperately needed.

Thus, we are faced with a bootstrap operation. On the one foot we must pursue, according to our various inclinations, investigations designed to delineate those learnings, and the conditions of facilitation and inhibition, in early childhood that are essential to later acquisition of the cognitive and social skills demanded by school curricula. Meanwhile, with the other foot, we must initiate intervention using the best principles of psychology and pedagogy available.

A highly technological society demands a large and constantly replenished reservoir of educated manpower. Certainly, one of the most striking cultural developments in the present century has been the extension of publicly supported education to the total population. Along with this mandate for training all children in basic academic skills, the educational establishment has acquired increasing responsibility for transmitting much of the cultural heritage and values. Since there is far from unanimity about the proper content and interpretation of such heritage, the schools are inevitably plagued by the militancy of various factions. In the face of such repeated onslaughts and yet attempting to fulfill its charge, education must inevitably be conservative in two senses:

cautious in the face of attack, yet conserving for transmission to the young the distilled essence of societal values and attitudes. Some of us would feel that the process too often results merely in preservation of the lowest common denominator.

In recent years the schools have been beset by a number of urgent demands for immediate revitalization of the educational process in response to cultural crises. Thus, we had within the past decade the Sputnik revolution, whereby the schools were suddenly considered to be grossly ineffective in fostering scientific training. Some shrill critics went so far as to hold the education establishment responsible for our loss in the initial game of the space race. Although such attack may seem unwarranted and irresponsible, the schools were not defended by societal leaders, probably because none of us are satisfied that education is functioning optimally with respect to our particular interests. Here we are faced with the dilemma that though we demand a great deal from schools in the preparation of the young, we are very negligent in support of the process. Our financial support is woefully inadequate for the job to be done. Although the schools theoretically provide equal opportunity to all, the fiscal tie to property taxes means greater education resources in the wealthier communities and gross financial neglect in the slums.

This problem of financial resources is especially pertinent to the current emphasis upon corrective educational enterprises for the children of poverty. A number of communities have attempted to improve the situation

by various plans of reassignment, removing slum children to middle class schools or vice-versa. This approach does violence to the traditional concept of neighborhood primary schooling, with the resulting furor of parental clamor that has been amply reported in the press. Some have argued that the more appropriate tact is to make schools in slum areas the very best possible by financial overcompensation. Assuming that abundant resources were to be made available, the question remains as to what we are to do with them. What premises and principles can we in psychology and other social sciences related to education offer to programmers of compensatory education for the poor?

The goals of education for children of poverty, or for any children, can be considered as essentially threefold: (1) to enable them to cope with the demands of the school situation, both social and cognitive; (2) to maintain a sense of identity and integrity in an autocratic, punitive environment, sometimes at school as well as home; and (3) to develop a sense of competence, to be able to function in a responsible, independently productive manner.

In turn the pursuit of these goals involves a number of assumptions: (1) that poor children have a normal ability to learn; (2) that the behaviors they have learned prior to schooling have survival value in their home environs; (3) but that they are inappropriate to the school situation, e.g. (4) in that adults have a low positive reinforcement value, and (5) they are especially adept at avoidance techniques because of a lower threshold for punishment

cues. This can be explained as a product of discrimination learning, and therefore (6) the assumption that they will learn faster in school under conditions of high reward and low punishment.

That children of poverty have a normal ability to learn involves the view of intelligence as an acquired aptitude for further cultural learning based upon prior accumulated learnings of complex skills of language and cognition. This does not gainsay some factor of organismic neurological potential and maturation, but simply maintains that the linguistic, reasoning and motivational experiential acquisitions of slum children are highly significantly different from those of the more culturally favored. We do not as yet really know and understand these differences in learning conditions, but their import over time is obviously great in light of our generally accepted premise that much of human behavior is sequential in development. On the basis of a careful analysis of available longitudinal data, Bloom (1964) hypothesizes that any characteristic is most affected by the environment in the most rapid period of growth and has little effect in periods of slow or no growth. For all characteristics (except academic achievement) the most rapid growth appears to be during the first five or six years. Now, the basic question is whether these deprived children can learn effectively when they are provided with appropriate conditions. Further, is the accumulated learning that interferes with school adaptation irreversible by the time of school entry, and if so, at what age must corrective intervention be instigated?

These questions are central to the conception and design of the Education Improvement Program in Durham, North Carolina, an experimental education project with which I am associated. This five year program was initiated in 1965 by Everett Hopkins, Vice President of Duke University, and Donald Stedman, my colleague in Child Psychology; is funded by the Ford Foundation; is directed by Robert Spaulding of the University's Department of Education; and is sponsored by the University in cooperation with the city and county school systems, North Carolina College (a Negro institution of higher learning), and Operation Breakthrough, the local poverty authority. Three neighborhoods of the larger community of about 100,000 had been selected by the poverty authority as areas of greatest economic and social deprivation, one of entirely and another predominately Negro residents, with the third mostly Caucasian. In these neighborhoods the poverty program had begun various social and economic interventions, including day care centers for children. Our plan is to work primarily with samples of children in the three areas through classroom operations, but our program does utilize a social work component for acquisition of data about the home, liaison with parents about the school program and referral of the family to social service resources as indicated.

The questions of whether children raised in an environment of poverty are still capable of relearning upon school entry and at what prior age corrective intervention is most effective are being studied by selecting samples of ages two, three, four and five for initial and continuing educational

programs. Other samples are selected at the time of normal school entry (age six in North Carolina) for a special ungraded primary curriculum in the neighborhood school, while comparison samples are subjected to the usual school routines. All children once enrolled at any age will continue in our special programs until completion of the third year of primary school or termination of the project. Insofar as possible all programs are conducted in the neighborhood school facility. By such a design of representative sampling from age two to six, we hope to begin to cast some light on the question of much heat and little light, how early must corrective intervention begin?

The assumptions that poor children have learned behaviors that have survival value in their normal environs but are inappropriate to school adaptation, that adults have acquired a low positive and a high negative reinforcement value, and that these are accompanied by lower thresholds for punishment cues and a high prominence of avoidance techniques are all closely interrelated. Catherine Chilman (1966) in an excellent survey of the literature, lists a number of child rearing patterns associated with academic achievement as contrasted with those of poverty families:

1.	freedom to explore	limited freedom
2.	wide range of parent-guided experiences: perceptive, cognitive and social	constricted lives, distrust of unknown
3.	goal oriented delay of gratification	fatalism, apathy

4.	training and value of gradual independence	abrupt independence and loss of parental control
5.	parents as models of educational-occupational striving and success	models of failure, reliance on personal vs. skill attributes
6.	reliance on objective evidence	magical, rigid thinking
7.	high verbal communication with flexible, conceptual style, speaking and listening	Bernstein's restrictive code
8.	democratic attitudes	authoritarian attitudes
9.	collaborative stance toward school	fear and distrust of school
10.	abstract values	pragmatic, concrete values

Out of such patterns of child rearing, or at least associated with them, seem to emerge a typical pattern of child behavior involving little skill in interpersonal converse; expectations of authoritative, punitive treatment by adults; poor impulse control; alienated independence; low self-esteem; distrust of others; dominant responses of hostile aggression and/or withdrawal; little respect for middle class attitudes toward property rights; lack of concern with neatness; rigidity of thought; and non-engagement in abstract reasoning. A word of caution here about over-generalization from such data since they are derived from samples of urban slum children. Our initial experience with Durham's poor children is that the syndrome of alienation, violence, and fear proclaimed as prescriptive is not strongly evident in our small town, southern population. But systematic recording of their classroom behavior at age five

shows initially low task concentration, high negative attention seeking (disruptive, intrusive behaviors to engage peer attention) and low responsiveness to adult social approval.

Our first task therefore was to socialize the children to a classroom environment designed to foster responsible, independent productivity, seeking to further the development of those skills appropriate to school learning. We have approached this formidable task with a model of social learning theory and an orientation in favor of discovery pedagogy. Our conception of training or retraining the children follows closely the formulations of Bandura and Walters as set forth in Social Learning and Personality Development (1963). The problem is then seen as one of discrimination learning. The child must learn to cease behaviors that are painful or disruptive to others, while developing and strengthening those behaviors conducive to the adaptation of himself and classroom peers. Although internal language cues would seem central to this process, these children begin their school experience with little responsiveness to verbal cues from adults (except avoidance with verbal punishment cues), and do not seem to have adequately developed internal inhibitory and cognitively mediated processes. No wonder teachers are frustrated by their impulsiveness and poor response to direction and guidance.

Rosenhan (1966) and others have experimentally demonstrated the lower class children perform well under conditions of reward and poorly under disapproval for wrong responses, while middle class children do not so

differentiate. Since the children are concretely oriented in terms of material rewards, we adopted a regime of intermittent reinforcement with candy and verbal approval for attentive and cooperative behaviors. At the same time teachers must have a high tolerance for disruptive behaviors in order not to respond to them with negative reinforcement. This does not mean abandonment of verbal limits and goal-setting. The distinction here is between control through structure and control through aversive stimulation. This proves extremely difficult for teachers trained in the traditional ways of classroom control and discipline. They tend to adopt a laissez-faire approach, becoming anxious and frustrated thereby.

In order to establish a program of appropriate reinforcements for each child, we have classroom observers record the frequency of relevant behaviors (Spaulding, 1966), examine the profile with the teachers and agree upon the schedule to be adopted with the child. After a period of application, the observers again record the behavioral profile of the child. Essentially, this is a means of establishing a child behavior analysis for teacher response. All our teachers are thoroughly trained on the procedure, serving as observers for other teachers. The teacher must herself discriminate between social and cognitive behaviors with the goal of reinforcing the exploratory aspects of behavior rather than the attention-seeking aspects. To effect such social relearning, we have been working with a ratio of two teachers to twenty five-year-old children. We are not concerned at present with educational

economics, but with whether socialization to the classroom can be accomplished. In effect we are seeking to establish the teacher as a source of valued social approval for assertive cognitive effort and cooperative social activity. In order to do so we must engage the child with positive overtures and avoid reinforcement of his expectancies of punitive adult response for his disruptive attention bids. But our conception of the educative process is that the child will become more involved with cognitive tasks when he is encouraged and supported in discovering principles and relationships, rather than by rote learning of teacher exposition. Thus, approval by our teachers is for individual and cooperative search and discovery, not for repetition of teacher-defined coorect responses. Teacher reward is viewed as a means of directing the child towards engagement in cognitive exploration and reasoning as rewarding activities in and of themselves. The critical factors in the whole process are the shift from a negative to a positive orientation towards the teacher, and the further shift in control of adaptive activity from external to internal reinforcement.

How successful have we been in our initial efforts at socialization with such a conception? As you might expect, some children with high disruptive valence were much more difficult and frustrating to socialize. But over the eight months of our initial two classes we realized a notable decrease in disruptive behavior, increase in responsiveness to adult social approval and sustained involvement in cognitive tasks. To what extent continuing self-motivated cognitive effort has been attained is as yet unknown, but comparisions this year

with other first grade classes from poverty and privileged homes will provide such evidence.

We do not expect nor require that the learned behavior patterns appropriate to the school setting generalize to the home and neighborhood. The goal of our program is for the child to learn those social and cognitive skills necessary to educational achievement and to value such attainment. Our impression is that the families share this value, but are ineffective in training the child toward such accomplishment and feel alienated from such middle class institutions as the school. Hess and associates (1965) at the University of Chicago have found in an experimental maternal teaching situation that lower class mothers fail to give the child orientation to the task, or explanation of sequence, and use little specificity of language, while rewarding or punishing his responses nonetheless. In turn the child's responses are not goal-related nor inherently rewarding, lack corrective feedback, but are reinforced (usually negatively). The child not only fails to learn adequately, but develops a negative response to the experience. Thus, the adaptive reaction to mother's well meant but harmful teaching is to cease responding and to leave the field. Our expectation is that the child will learn to discriminate between school and home behavioral expectations and reinforcements, and respond accordingly with different patterns.

Although we have only begun to work with younger children of poverty, our initial group of twelve two-year-olds suggests that the task of socialization is quite different from that of the five year old. Rather than adult avoidant, peer

disruptive behaviors, the younger children are characterized by passive observation, little initiative in activity and a very low level of linguistic response, both in frequency and quality. They seem to be very shy and hesitant with the teachers as strange adults. The primary teaching task is therefore to engage them in any interaction with respect to materials that will positively reinforce interpersonal involvement. We have yet to do comparative observations, but our impression is that these children are quite different from the assertive, outgoing, verbal middle class children in typical nursery schools. Some of the children did not verbalize at all during the three hour, five-days-a-week sessions until after months of intensive work and individual attention.

Finally, a few comments on issues of program strategy and evaluation. The creation of early educational intervention programs for children of poverty means providing nursery and infant schools for those who would otherwise not have such experience. The basic model of facilities, materials and activities is taken from established programs for middle class children. Since such preschool training has become to be considered essential to the growth and development of privileged children, it tends to be taken for granted that poor children must have the same. But many specialists maintain that such general cultural enrichment is not sufficient and is doomed to failure unless we provide specific training in the linguistic, cognitive and social skills that middle class children acquire at home and these children do not. Bereiter,

at the University of Illinois, believes they must work harder to make up for a serious lag in linguistic learning before primary school entry, and eschews cultural enrichment as irrelevant and interfering. Most of the major demonstration programs give emphasis to the importance of language skills and devote particular attention to training in verbal coding and communication of experience and knowledge. In this regard the work and thinking of Bernstein is pervasive (1961) in influence. The Sociological Research Unit at the University of London is currently engaged in a well-designed, language training program with infant schools, emphasizing attention to and perception of auditory verbal material, experiences to be verbally coded, and formal linguistic teaching. For this purpose, they have devised an ingenious set of procedures for engaging and maintaining pupil interest.

The issue of family or child change seems to have been settled for the moment in terms of concentration on the child in the school setting. Attempting to change parental patterns to ways more productive of young scholars, assuming we knew such with any certainty, is fraught with difficulties due to the whole complex of poverty environments. So attention is directed to the learning capacity and adaptability of the young. A related issue is the possible alienation from the family if we are successful in educating the child. Or, will the effects of schooling be negated significantly by the continuing depressive aspects of the home? In our own program we are seeking to alter the cycle of poverty by intervention at the preparental age level as well as the preschool.

So we are instigating social and family oriented programs with those who will soon be producers of offspring in the poverty neighborhoods, students in their early adolescent years. Thus, the focus on parentage is preparatory rather than rehabilitative.

The questions of personal support for the child and challenge to social-cognitive attainment have too often been polarized into an issue of nurturance versus demands, as though tender loving care and demands in terms of goal-setting were mutually exclusive. This dichotomy seems to derive from the fragile-young, mother-protective orientation of too many nursery school teachers. The question might better be put in terms of the need to provide ego-enhancing experiences for the child. Failure to establish guidelines by clear and consistent limits and expectations creates confusion and anxiety in the child, forcing him to rely on internal or misunderstood external cues for behavior. There must be structure to a program; the issue is rather one of teacher versus child-centered learning climates.

With regard to evaluation of educational intervention programs many projects place their expectations of success upon significant increments in such ubiquitous cognitive measures as the IQ, utilizing the classical control group design. Gallagher (1965) in connection with our own project, has pointed out that such an approach involves unwarranted hopes of the generalized effects of anything, since both educational treatment and general cognitive measures consist of whole complexes of variables with the specific and interactive affects unknown. By

now we should have learned from the fruitless experiences of psychotherapy research in terms of outcome, that we must study closely the process in complex treatments. Gallagher refers to internal evaluation wherein emphasis is given to comparisons within the treated group to ascertain the factors contributing to relative effectiveness. This requires establishment of individual baseline responses, such as with our coping categories, and specification of the patterning and sequence of teaching variables. General cognitive growth measures are useful as benchmarks in long term programs but will not elucidate the teaching and learning process involved in change.

In closing, I would make the observation that the urgent demand for social action with regard to the educational status of poverty children has been an important impetus in turning psychology's attention to the study of complex human learning, education's constant concern, from whence we have wandered since the days of Thorndike, following other trails laid by Binet and Freud. I am pleased to see us really back in the learning business.

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